Program Requirements for Graduate Medical Education in Orthopaedic Surgery

Common Program Requirements Appear in Bold
Specialty Specific Requirements Are Not Bolded

I. Introduction

A. Definition and Scope of the Specialty

Orthopaedic surgery is the medical specialty that includes the study and prevention of musculoskeletal diseases, disorders, and injuries and their treatment by medical, surgical, and physical methods.

B. Duration and Scope of Education

1. Orthopaedic residencies will be accredited to offer 5 years of graduate medical education. The orthopaedic residency director is responsible for the design, implementation, and oversight of a PGY-1 year that will prepare residents for specialty education in orthopaedic surgery. This year must include resident participation in clinical and didactic activities that will give them the opportunity to

a. develop the knowledge, attitudes, and skills needed to formulate principles and assess, plan, and initiate treatment of adult and pediatric patients with surgical and/or medical problems;

b. be involved in the care of patients with surgical and medical emergencies, multiple organ system trauma, soft tissue wounds, nervous system injuries and diseases, peripheral vascular injuries and diseases, and rheumatologic and other medical diseases;

c. gain experience in the care of critically ill surgical and medical patients;

d. participate in the pre-, intra -and post-operative care of surgical patients; and

e. develop an understanding of surgical anesthesia, including anesthetic risks and the management of intra-operative anesthetic complications.

2. In order to meet these goals the PGY-1 year must include

a. a minimum of six months of structured education in surgery, to include multi-system trauma, plastic surgery/burn care, intensive care, and vascular surgery;

b. a minimum of one month of structured education in at least three of the following: emergency medicine, medical/cardiac intensive care, internal medicine, neurology, neurological surgery, pediatric surgery or pediatrics, rheumatology, anesthesiology, musculoskeletal imaging, and rehabilitation; and

c. a maximum of three months of orthopaedic surgery.

3. The program director is also responsible for the design, implementation and oversight of PGY-2 through PGY-5 years that

a. must include at least 3 years of rotations on orthopaedic services; and

b. may include rotations on related services such as plastic surgery, physical medicine and rehabilitation, rheumatology, or neurological surgery.

II. Institutions

A. Sponsoring Institution

One sponsoring institution must assume ultimate responsibility for the program, as described in the Institutional Requirements, and this responsibility extends to resident assignments at all participating institutions.

1. One primary site must provide most of the residents= basic science and research education.

a. Residents= clinical education at the primary site should include extensive experience in patient care. Preoperative evaluation and postoperative follow-up, as well as evaluation and treatment of patients not requiring surgery, must be included.

b. Basic science education and the principal clinical conferences should be provided at the primary site. Supplemental conferences may also be provided at other locations, but the program=s didactic activities should be provided at the program=s primary site.

2. The governing body of the sponsoring institution must provide support for the program director in teaching, recruiting staff, selecting residents, assigning residents to an appropriate workload, and dismissing residents whose performance is unsatisfactory and must encourage continuity in the program directorship.

3. In communities where the didactic programs of several residencies are

combined, the staff of each accredited program must actively and consistently participate in the combined effort.

4. To provide an adequate interdisciplinary educational experience, the institution that sponsors the orthopaedic program should also participate in ACGME-accredited programs in general surgery, internal medicine, and pediatrics.

B. Participating Institutions

1. Assignment to an institution must be based on a clear educational rationale, integral to the program curriculum, with clearly-stated activities and objectives. When multiple participating institutions are used, there should be assurance of the continuity of the educational experience.

2. Assignment to a participating institution requires a letter of agreement with the sponsoring institution. Such a letter of agreement should:

a) identify the faculty who will assume both educational and supervisory responsibilities for residents;

b) specify their responsibilities for teaching, supervision, and formal evaluation of residents, as specified later in this document;

c) specify the duration and content of the educational experience; and

d) state the policies and procedures that will govern resident education during the assignment.

3. Affiliations should be avoided with institutions that are at such a distance from the sponsoring institution as to make resident participation in program conferences and rounds difficult, unless the participating institution provides comparable activities.

4. The program director must have the responsibility and authority to coordinate program activities at all participating institutions and must maintain a file of written descriptions of the educational activities provided at each institution involved in the program.

III. Program Personnel and Resources

A. Program Director

1. There must be a single program director responsible for the program.

The person designated with this authority is accountable for the operation of the program. In the event of a change of either program director or department chair, the program director should promptly notify the executive director of the RRC through the Web Accreditation Data System of the ACGME.

2. **The Program Director, together with the faculty, is responsible for the general administration of the program, and for the establishment and maintenance of a stable educational environment. Adequate lengths of appointment for both the program director and faculty are essential to maintaining such an appropriate continuity of leadership.** Programs that have acting directors for more than one year will be subject to review, which may include a site visit.

3. **Qualifications of the program director are as follows:**

   a) **The program director must possess the requisite specialty expertise, as well as documented educational and administrative abilities.**

   b) **The program director must be certified in the specialty by the American Board of Orthopaedic Surgery, or possess qualifications judged to be acceptable by the RRC.**

   c) **The program director must be appointed in good standing and based at the primary teaching site.**

4. **Responsibilities of the program director are as follows:**

   a) **The program director must oversee and organize the activities of the educational program in all institutions that participate in the program. This includes selecting and supervising the faculty and other program personnel at each participating institution, appointing a local site director, and monitoring appropriate resident supervision at all participating institutions.**

   b) **The program director is responsible for preparing an accurate statistical and narrative description of the program as requested by the RRC, as well as updating annually both program and resident records through the ACGME's Accreditation Data System.**

   c) **The program director must ensure the implementation of fair policies, grievance procedures, and due process, as established by the sponsoring institution and in compliance with the**

Institutional Requirements.

d) **The program director must seek the prior approval of the RRC for any changes in the program that may significantly alter the educational experience of the residents. Such changes, for example, include:**

(1) **the addition or deletion of a participating institution;**

(2) **a change in the format of the educational program;**

(3) **a change in the approved resident complement for those specialties that approve resident complement.**

On review of a proposal for any such major change in a program, the RRC may determine that a site visit is necessary.

e) Ensuring the provision of adequate facilities, teaching staff, resident staff, teaching beds, educational resource materials, outpatient facilities, and research facilities.

f) Maintaining a file of current, written institutional and interinstitutional agreements, resident agreements, patient care statistics, the operative experience of individual residents, policies on duty hours and supervision, and regular assessments of resident performance. These documents must be provided on request to the RRC or to the site visitor.

B. Faculty

1. At each participating institution, there must be a sufficient number of faculty with documented qualifications to instruct and supervise adequately all residents in the program.

a) All program must have at least three faculty who devote at least 20 hours each week to the program.

b) There must be at least one full-time faculty equivalent (one FTE equals 45 hours per week devoted to the residency) for every four residents in the program (excluding residents in nonorthopaedic education).

c) It is the responsibility of the teaching staff to ensure that the structure and content of the residency reflect an education-to-service ratio that identifies residents as students and provide adequate experience in preoperative and postoperative, as well as intraoperative, patient care.

d) The teaching staff must provide direct supervision appropriate to a resident=s competence and level of training in all patient care settings, including operative, inpatient, outpatient, and emergency.

2. **The faculty, furthermore, must devote sufficient time to the educational program to fulfill their supervisory and teaching responsibilities. They must demonstrate a strong interest in the education of residents, and must support the goals and objectives of the educational program of which they are a member.**

3. **Qualifications of the physician faculty are as follows:**

   a) **The physician faculty must possess the requisite specialty expertise and competence in clinical care and teaching abilities, as well as documented educational and administrative abilities and experience in their field.**

   b) **The physician faculty must be certified in the specialty by the American Board of Orthopaedic Surgery, or possess qualifications judged to be acceptable by the RRC.**

   c) **The physician faculty must be appointed in good standing to the staff of an institution participating in the program.**

4. **The responsibility for establishing and maintaining an environment of inquiry and scholarship rests with the faculty, and an active research component must be included in each program. *Scholarship* is defined as the following:**

   a) **the scholarship of *discovery*, as evidenced by peer-reviewed funding or by publication of original research in a peer-reviewed journal;**

   b) **the scholarship of *dissemination*, as evidenced by review articles or chapters in textbooks;**

   c) **the scholarship of *application*, as evidenced by the publication or presentation of, for example, case reports or clinical series at local, regional, or national professional and scientific society meetings.**

Complementary to the above scholarship is the regular participation of the teaching staff in clinical discussions, rounds, journal clubs, and research conferences in a manner that promotes a spirit of inquiry and scholarship (e.g., the offering of guidance and technical support for

residents involved in research such as research design and statistical analysis); and the provision of support for residents=participation, as appropriate, in scholarly activities.

5. Qualifications of the nonphysician faculty are as follows:

a) Nonphysician faculty must be appropriately qualified in their field.

b) Nonphysician faculty must possess appropriate institutional appointments.

C. Other Program Personnel

Additional necessary professional, technical, and clerical personnel must be provided to support the program.

D. Resources

The program must ensure that adequate resources (e.g., sufficient laboratory space and equipment, computer and statistical consultation services) are available.

1. Residents must have ready access to a major medical library, either at the institution where the residents are located or through arrangement with convenient nearby institutions.

2. Library resources must include current and past orthopaedic periodicals and reference books that are readily accessible to all orthopaedic residents in the program.

3. Library services should include the electronic retrieval of information from medical databases.

4. There must be access to an on-site library or to a collection of appropriate texts and journals in each institution participating in a residency program. On-site libraries and/or collections of texts and journals must be readily available during nights and weekends.

IV. Resident Appointments

A. Eligibility Criteria

The program director must comply with the criteria for resident eligibility as specified in the Institutional Requirements. Programs are encouraged to recognize the value and importance of recruiting qualified women and minority students.

B. **Number of Residents**

The RRC will approve the number of residents to be educated in the program and at each level of the program **based upon established written criteria that include the adequacy of resources for resident education (e.g., the quality and volume of patients and related clinical material available for education), faculty-resident ratio, institutional funding, and the quality of faculty teaching.** It is important that the resident complement be sufficient in number to sustain an educational environment.

C. **Resident Transfers**

To determine the appropriate level of education for residents who are transferring from another residency program, the program director must receive written verification of previous educational experiences and a statement regarding the performance evaluation of the transferring resident prior to their acceptance into the program. A program director is required to provide verification of residency education for residents who may leave the program prior to completion of their education.

D. **Appointment of Fellows and Other Students**

The appointment of fellows and other specialty residents or students must not dilute or detract from the educational opportunities available to regularly appointed residents.

V. **Program Curriculum**

A. **Program Design**

1. **Format**

The program design and sequencing of educational experiences will be approved by the RRC as part of the review process.

2. **Goals and Objectives**

The program must possess a written statement that outlines its educational goals with respect to the knowledge, skills, and other attributes of residents for each major assignment and for each level of the program. This statement must be distributed to residents and faculty, and must be reviewed with residents prior to their assignments.

B. **Specialty Curriculum**

The program must possess a well-organized and effective curriculum, both didactic and clinical. The curriculum must also provide residents with direct experience in progressive responsibility for patient management.

1. Didactic Components

a. Basic Medical Sciences

Basic science education must include substantial instruction in anatomy, biomechanics, pathology, and physiology. The basic science program must also include resident education in embryology, immunology, pharmacology, biochemistry, and microbiology.

(1) Instruction in anatomy must include study and dissection of anatomic specimens by the residents and lectures or other formal sessions.

(2) Instruction in pathology must include organized instruction in correlative pathology in which gross and microscopic pathology are related to clinical and roentgenographic findings.

(3) Instruction in biomechanics should be presented in seminars or conferences emphasizing principles, terminology, and application to orthopaedics.

(4) Organized instruction in the basic medical sciences must be integrated into the daily clinical activities by clearly linking the pathophysiologic process and findings to the diagnosis, treatment, and management of clinical disorders.

(5) Organized instruction in the appropriate use and interpretation of radiographic and other imaging techniques must be provided for all residents.

b. Related Areas of Instruction

Resident education must include orthopaedic oncology, rehabilitation of neurologic injury and disease, spinal cord injury rehabilitation, orthotics and prosthetics, and the ethics of medical practice.

c. Teaching Rounds and Conferences

Faculty and residents must attend and participate in regularly scheduled and held teaching rounds, lectures, and conferences. Treatment indications, clinical outcomes, complications, morbidity, and mortality

must be critically reviewed and discussed on a regular basis. Subjects of mutual interest and the changing practice of medicine should be discussed at interdisciplinary conferences. On average, there must be at least 4 hours of formal teaching activities each week.

2. Clinical Components

a. Clinical Resources

Clinical problems must be of sufficient variety and volume to afford the residents adequate experience in the diagnosis and management of adult and pediatric orthopaedic disorders. The residents' clinical experience must include adult orthopaedics, including joint reconstruction; pediatric orthopaedics, including pediatric trauma; trauma, including multisystem trauma; surgery of the spine, including disk surgery, spinal trauma, and spinal deformities; hand surgery; foot surgery in adults and children; athletic injuries, including arthroscopy; metastatic disease; and orthopaedic rehabilitation, including amputations and postamputation care.

b. Continuity of Care

All residents must have the opportunity to develop competence in the preadmission care, hospital care, operative care, and follow-up care (including rehabilitation) of patients. Opportunities for resident involvement in all aspects of care of the same patient should be maximized.

c. Nonoperative Outpatient Experience

Residents must have adequate experience in nonoperative outpatient diagnosis and care, including all orthopaedic anatomic areas and patients of all age groups. Each week residents must have at least one-half day and should have two-half days of outpatient clinical experience in physician offices or hospital clinics with a minimum of 10 patients per session on all clinical rotations. Residents must be directly supervised by faculty and instructed in pre- and post-operative assessment as well as the operative and non-operative care of general and subspecialty orthopaedic patients. Opportunities for resident involvement in all aspects of outpatient care of the same patient should be maximized.

d. Progressive Responsibility

Residents must have the opportunity to assume increasing responsibility for patient care, under direct faculty supervision (as appropriate for

each resident's ability and experience), as they progress through a program. Inpatient and outpatient experience with all age groups is necessary.

e. Basic Motor Skills

Instruction in basic motor skills must include experience in the proper use of surgical instruments and operative techniques. Evaluation of new or experimental techniques and/or materials should be emphasized. The application of basic motor skills must be integrated into daily clinical activities, especially in the operating room.

C. Residents Scholarly Activities

Each program must provide an opportunity for residents to participate in research or other scholarly activities, and residents must participate actively in such scholarly activities.

1. Resources for scholarly activity by residents must include laboratory space and equipment, computer and data analysis services, statistical consultation services, research conferences, faculty expertise and supervision, support personnel, time, and funding.

2. To develop the abilities to critically evaluate medical literature, research, and other scholarly activity, resident education must include instruction in experimental design, hypothesis testing, and other current research methods, as well as participation in clinical or basic research.

3. Program directors must maintain a current record of research activity by residents and faculty.

D. ACGME Competencies

The residency program must require its residents to obtain competence in the six areas listed below to the level expected of a new practitioner. Programs must define the specific knowledge, skills, behaviors, and attitudes required, and provide educational experiences as needed in order for their residents to demonstrate the following:

1. ***Patient care*** **that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.** Residents are expected to:

   a. communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families;

b. gather essential and accurate information about their patients;

c. make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment;

d. develop and carry out patient management plans;

e. counsel and educate patients and their families;

f. demonstrate the ability to practice culturally competent medicine;

g. use information technology to support patient care decisions and patient education;

h. perform competently all medical and invasive procedures considered essential for the area of practice;

i. provide health care services aimed at preventing health problems or maintaining health; and

j. work with health care professionals, including those from other disciplines, to provide patient-focused care.

2. ***Medical Knowledge*** **about established and evolving biomedical, clinical, and cognate sciences, as well as the application of this knowledge to patient care**. Residents are expected to:

a. demonstrate an investigatory and analytic thinking approach to clinical situations; and

b. know and apply the basic and clinically supportive sciences which are appropriate to orthopaedic surgery.

3 ***Practice-based learning and improvement*** **that involves the investigation and evaluation of care for their patients, the appraisal and assimilation of scientific evidence, and improvements in patient care.** Residents are expected to:

a. analyze practice experience and perform practice-based improvement activities using a systematic methodology;

b. locate, appraise, and assimilate evidence from scientific studies related to their patients= health problems;

c. obtain and use information about their own population of patients and

the larger population from which their patients are drawn;

d. apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness;

e. use information technology to manage information, access on-line medical information, and support their own education; and

f. facilitate the learning of students and other health care professionals.

4. ***Interpersonal and communication skills*** **that result in the effective exchange of information and collaboration with patients, their families, and other health professionals.** Residents are expected to:

a. create and sustain a therapeutic and ethically sound relationship with patients;

b. use effective listening skills and elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills; and

c work effectively with others as a member or leader of a healthcare team or other professional group.

5. ***Professionalism*****, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to patients of diverse backgrounds.** Residents are expected to:

a. demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supercedes self-interest; accountability to patients, society and the profession; and a commitment to excellence and ongoing professional development;

b. demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices;

c. demonstrate sensitivity and responsiveness to patients= culture, age, gender, and disabilities; and

d. demonstrate sensitivity and responsiveness to fellow health care professionals= culture, age, gender, and disabilities.

6. ***Systems-based practice*****, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system of**

health care, as well as the ability to call effectively on other resources in the system to provide optimal health care. Residents are expected to:

a. understand how their patient care and other professional practices affect other healthcare professionals, the healthcare organization, and the larger society and how these elements of the system affect their own practice;

b. know how types of medical practice and delivery systems differ from one another, including methods of controlling healthcare costs and allocating resources;

c. practice cost-effective health care and resources allocation that does not compromise quality of care;

d. advocate for quality patient care and assist patients in dealing with system complexities; and

e. know how to partner with health care managers and healthcare procedures to assess, coordinate, and improve health care and know how these activities can affect system performance.

VI. Resident Duty Hours and the Working Environment

Providing residents with a sound didactic and clinical education must be carefully planned and balanced with concerns for patient safety and resident well-being. Each program must ensure that the learning objectives of the program are not compromised by excessive reliance on residents to fulfill service obligations. Didactic and clinical education must have priority in the allotment of residents=time and energy. Duty hour assignments must recognize that faculty and residents collectively have responsibility for the safety and welfare of patients.

A. Supervision of Residents

1. **All patient care must be supervised by qualified faculty. The program director must ensure, direct, and document adequate supervision of residents at all times. Residents must be provided with rapid, reliable systems for communicating with supervising faculty.**

2. **Faculty schedules must be structured to provide residents with continuous supervision and consultation.**

3. **Faculty and residents must be educated to recognize the signs of fatigue, and adopt and apply policies to prevent and counteract its potential negative effects.**

B. Duty Hours

1. Duty hours are defined as all clinical and academic activities related to the residency program; i.e., patient care (both inpatient and outpatient), administrative duties relative to patient care, the provision for transfer of patient care, time spent in-house during call activities, and scheduled activities such as conferences. Duty hours do *not* include reading and preparation time spent away from the duty site.

2. Duty hours must be limited to 80 hours per week, averaged over a four-week period, inclusive of all in-house call activities.

3. Residents must be provided with 1 day in 7 free from all educational and clinical responsibilities, averaged over a 4-week period, inclusive of call. *One day* is defined as 1 continuous 24-hour period free from all clinical, educational, and administrative duties.

4. Adequate time for rest and personal activities must be provided. This should consist of a 10-hour time period provided between all daily duty periods and after in-house call.

C. On-call Activities

The objective of on-call activities is to provide residents with continuity of patient care experiences throughout a 24-hour period. *In-house call* is defined as those duty hours beyond the normal work day, when residents are required to be immediately available in the assigned institution.

1. In-house call must occur no more frequently than every third night, averaged over a 4-week period.

2. Continuous on-site duty, including in-house call, must not exceed 24 consecutive hours. Residents may remain on duty for up to 6 additional hours to participate in didactic activities, transfer care of patients, conduct outpatient clinics, and maintain continuity of medical and surgical care.

3. No new patients may be accepted after 24 hours of continuous duty.

4. *At-home call* (or *pager call*) is defined as a call taken from outside the assigned institution.

   a) The frequency of at-home call is not subject to the every-third-night limitation. At-home call, however, must not be so frequent as to preclude rest and reasonable personal time for each

resident. Residents taking at-home call must be provided with 1 day in 7 completely free from all educational and clinical responsibilities, averaged over a 4-week period.

b) When residents are called into the hospital from home, the hours residents spend in-house are counted toward the 80-hour limit.

c) The program director and the faculty must monitor the demands of at-home call in their programs, and make scheduling adjustments as necessary to mitigate excessive service demands and/or fatigue.

D. Moonlighting

1. Because residency education is a full-time endeavor, the program director must ensure that moonlighting does not interfere with the ability of the resident to achieve the goals and objectives of the educational program.

2. The program director must comply with the sponsoring institution=s written policies and procedures regarding moonlighting, in compliance with the ACGME Institutional Requirements.

3. Any hours a resident works for compensation at the sponsoring institution or any of the sponsor=s primary clinical sites must be considered part of the 80-hour weekly limit on duty hours. This refers to the practice of *internal moonlighting*.

E. Oversight

1. Each program must have written policies and procedures consistent with the Institutional and Program Requirements for resident duty hours and the working environment. These policies must be distributed to the residents and the faculty. Duty hours must be monitored with a frequency sufficient to ensure an appropriate balance between education and service.

2. Back-up support systems must be provided when patient care responsibilities are unusually difficult or prolonged, or if unexpected circumstances create resident fatigue sufficient to jeopardize patient care.

F. Duty Hours Exceptions

An RRC may grant exceptions for up to 10% of the 80-hour limit to individual

programs based on a sound educational rationale. Prior permission of the institution=s GMEC, however, is required.

VII. Evaluation

A. Resident

1. Formative Evaluation

The faculty must evaluate in a timely manner the residents whom they supervise. In addition, the residency program must demonstrate that it has an effective mechanism for assessing resident performance throughout the program, and for utilizing the results to improve resident performance.

a) Assessment should include the use of methods that produce an accurate assessment of residents=competence in patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice.

b) Assessment should include the regular and timely performance feedback to residents that includes at least semiannual written evaluations. Such evaluations are to be communicated to each resident in a timely manner, and maintained in a record that is accessible to each resident.

c) Assessment should include the use of assessment results, including evaluation by faculty, patients, peers, self, and other professional staff, to achieve progressive improvements in residents=competence and performance.

2. Final Evaluation

The program director must provide a final evaluation for each resident who completes the program. This evaluation must include a review of the resident=s performance during the final period of education, and should verify that the resident has demonstrated sufficient professional ability to practice competently and independently. The final evaluation must be part of the resident=s permanent record maintained by the institution.

B. Faculty

The performance of the faculty must be evaluated by the program no less

frequently than at the midpoint of the accreditation cycle, and again prior to the next site visit. The evaluations should include a review of their teaching abilities, commitment to the educational program, clinical knowledge, and scholarly activities. This evaluation must include annual written confidential evaluations by residents.

C. Program

The educational effectiveness of a program must be evaluated at least annually in a systematic manner.

1. **Representative program personnel (i.e., at least the program director, representative faculty, and one resident) must be organized to review program goals and objectives, and the effectiveness with which they are achieved. This group must conduct a formal documented meeting at least annually for this purpose. In the evaluation process, the group must take into consideration written comments from the faculty, the most recent report of the GMEC of the sponsoring institution, and the residents=confidential written evaluations. If deficiencies are found, the group should prepare an explicit plan of action, which should be approved by the faculty and documented in the minutes of the meeting.**

2. **The program should use resident performance and outcome assessment in its evaluation of the educational effectiveness of the residency program. Performance of program graduates on the certification examination should be used as one measure of evaluating program effectiveness.** Program graduates should take both Part I and Part II of the American Board of Orthopaedic Surgery examinations and at least 75% of those who take the exams for the first time should pass.

3. **The program should maintain a process for using assessment results together with other program evaluation results to improve the residency program.**

VIII. Experimentation and Innovation

Since responsible innovation and experimentation are essential to improving professional education, experimental projects along sound educational principles are encouraged. Requests for experimentation or innovative projects that may deviate from the program requirements must be approved in advance by the RRC, and must include the educational rationale and method of evaluation. The sponsoring institution and program are jointly responsible for the quality of education offered to residents for the duration of such a project.

IX. Certification

Residents who plan to seek certification by the American Board of Orthopaedics Surgery should communicate with the office of the board regarding the full requirements for certification.

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INSTITUTIONAL REQUIREMENTS

ACGME APPROVED 2/11/03
EFFECTIVE, 7/1/03

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INSTITUTIONAL REQUIREMENTS

ACGME APPROVED 2/11/03
EFFECTIVE, 7/1/03

I. INTRODUCTION

A. Purpose of Graduate Medical Education (GME)

The purpose of GME is to provide an organized educational program with guidance and supervision of the resident, facilitating the resident's ethical, professional and personal development while ensuring safe and appropriate care for patients.

B. Sponsoring Institution

1. ACGME-accredited GME programs must operate under the authority and control of a Sponsoring Institution (see definition of "Sponsoring Institution" in the Glossary under "Institution").

2. A Sponsoring Institution must be appropriately organized for the conduct of GME in a scholarly environment and must be committed to excellence in both medical education and patient care.

C. Compliance with ACGME Requirements, Policies and Procedures

1. A Sponsoring Institution must be in substantial compliance with the Accreditation Council for Graduate Medical Education (ACGME) Institutional Requirements and must ensure that its ACGME- accredited programs are in substantial compliance with the Institutional, common and specialty-specific Program Requirements.

2. A Sponsoring Institution's failure to comply substantially with the Institutional Requirements may jeopardize the accreditation of all of its sponsored ACGME-accredited programs.

3. A Sponsoring Institution and its ACGME-accredited programs must be in substantial compliance with the ACGME Manual of Policies and Procedures for GME Review Committees (ACGME Web site, www.acgme.org). Of particular note are those policies and procedures that govern "Administrative Withdrawal," an action that could result in the closure of a Sponsoring Institution's ACGME-accredited program(s) and cannot be appealed.

II. INSTITUTIONAL RESPONSIBILITIES

A. Commitment to GME

The commitment of the Sponsoring Institution to GME is exhibited by the provision of leadership, organizational structure, and resources to enable the institution to achieve substantial compliance with the Institutional Requirements and to enable its ACGME-accredited programs to achieve substantial compliance with Program Requirements. This includes providing an ethical, professional, and educational environment in which the curricular requirements as well as the applicable requirements for scholarly activity and the general competencies can be met. The regular assessment of the quality of the GME programs, the performance of their residents, and the use of outcome assessment results for program improvement are essential components of this commitment.

1. There must be a written statement of institutional commitment to GME that is dated and signed within two years of the next institutional review and indicates the support of the governing authority, the administration, and the GME leadership of the Sponsoring Institution. This statement must specify, at a minimum, a commitment to providing the necessary educational, financial, and human resources to support GME.

2. There must be an organized administrative system, which includes a graduate medical education committee (GMEC) as described in Section IV, to oversee all ACGME-accredited programs of the Sponsoring Institution.

3. There must be a Designated Institutional Official (DIO) who has the authority and responsibility for the oversight and administration of the Sponsoring Institution's ACGME-accredited programs and who is responsible for assuring compliance with ACGME Institutional Requirements.

    a) The DIO is to establish and implement procedures to ensure that s/he, or a designee in the absence of the DIO, reviews and cosigns all program information forms and any correspondence or document submitted to the ACGME by the program directors that either addresses program citations or requests changes in the programs that would have significant impact, including financial, on the program or institution.

    b) The DIO and/or the Chair of the GMEC shall present an annual report to the Organized Medical Staff(s) (OMS) and the governing body(s) of the major participating JCAHO-accredited hospitals in which the GME programs of the Sponsoring Institution are conducted. This annual report will review the activities of the GMEC during the past year with attention to resident supervision, resident responsibilities, resident evaluation, and the Sponsoring Institution's participating hospitals' and programs' compliance with the duty-hour standards. The GMEC should receive concerns of the OMS related to the items listed above. The GMEC

and the OMS should regularly communicate about the safety and quality of patient care provided by the residents.

4. The Sponsoring Institution must provide sufficient institutional resources, to include GME staff, space, equipment, supplies, and time to allow for effective oversight of its ACGME-accredited programs. In addition, there must be sufficient institutional resources to ensure the effective implementation and development of the ACGME-accredited programs in compliance with the Program and Institutional Requirements.

5. The DIO, GME staff and personnel, program directors, faculty and residents must have access to adequate communication resources and technological support. This should include, at a minimum, computers and access to the Internet.

B. Institutional Agreements

1. The Sponsoring Institution retains responsibility for the quality of GME even when resident education occurs in other institutions.

2. Current institutional agreements (ie, master affiliation agreements) must exist between the Sponsoring Institution and all of its major participating institutions.

3. The Sponsoring Institution must assure that each of its ACGME-accredited programs has established program letters of agreement (or memoranda of understanding) with its participating institutions in compliance with the specialty's Program Requirements.

C. Accreditation for Patient Care

1. Institutions sponsoring or participating in ACGME-accredited programs should be accredited by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), if such institutions are eligible.

2. If a sponsoring or participating institution is eligible for JCAHO accreditation and chooses not to undergo such accreditation, then the institution should be reviewed by and meet the standards of another recognized body with reasonably equivalent standards.

3. If a sponsoring or participating institution is not accredited by JCAHO, it must provide a satisfactory explanation of why accreditation has not been either granted or sought.

4. If an institution loses its JCAHO accreditation or recognition by another appropriate body, the Institutional Review Committee (IRC) must be notified in writing with an explanation.

D. Quality Assurance

Sponsoring Institutions must ensure that formal quality-assurance programs are conducted and that there is a review of complications and deaths. To the degree possible and in conformance with state law, residents should participate in appropriate components of the institution's performance improvement program.

III. INSTITUTIONAL RESPONSIBILITIES FOR RESIDENTS

A. Eligibility and Selection of Residents

The Sponsoring Institution must assure that all enrolled residents are eligible as defined below. Institutions and ACGME-accredited programs that enroll noneligible residents will be subject to administrative withdrawal. The Sponsoring Institution must have written policies and procedures for the recruitment and appointment of residents that comply with the following requirements and must monitor each program for compliance:

1. Resident eligibility:

Applicants with one of the following qualifications are eligible for appointment to ACGME-accredited programs:

a) Graduates of medical schools in the United States and Canada accredited by the Liaison Committee on Medical Education (LCME).

b) Graduates of colleges of osteopathic medicine in the United States accredited by the American Osteopathic Association (AOA).

c) Graduates of medical schools outside the United States and Canada who meet one of the following qualifications:

1) Have received a currently valid certificate from the Educational Commission for Foreign Medical Graduates prior to appointment or

2) Have a full and unrestricted license to practice medicine in a US licensing jurisdiction in which they are in training.

d) Graduates of medical schools outside the United States who have completed a Fifth Pathway* program provided by an LCME-accredited medical school.

2. Resident selection:

   a) The Sponsoring Institution must ensure that its ACGME-accredited programs select from among eligible applicants on the basis of their preparedness, ability, aptitude, academic credentials, communication skills, and personal qualities such as motivation and integrity. ACGME-accredited programs must not discriminate with regard to sex, race, age, religion, color, national origin, disability, or veteran status.

   b) In selecting from among qualified applicants, it is strongly suggested that the Sponsoring Institution and all of its ACGME-accredited programs participate in an organized matching program, such as the National Resident Matching Program (NRMP), where such is available.

B. Financial Support for Residents

Sponsoring and participating institutions should provide all residents with appropriate financial support and benefits to ensure that residents are able to fulfill the responsibilities of their educational programs.

C. Benefits and Conditions of Appointment

Candidates for ACGME-accredited programs (applicants who are invited for an interview) must be informed, in writing or by electronic means, of the terms, conditions, and benefits of appointment, including financial support; vacations; parental, sick, and other leaves of absence; professional liability, hospitalization, health, disability and other insurance provided for the residents and their families; and the conditions under which living quarters, meals, laundry services, or their equivalents are to be provided.

D. Agreement of Appointment

1. The Sponsoring Institution must assure that residents are provided with a written agreement of appointment or contract outlining the terms and conditions of their appointment to an ACGME-accredited program, and the institution must monitor the implementation of these terms and conditions by the program directors. Sponsoring Institutions and program directors must ensure that residents adhere to established practices, policies, and procedures in all institutions to which residents are assigned. The agreement must contain or provide a reference to at least the following:

   a. Residents' responsibilities;

   b. Duration of appointment;

   c. Financial support;

d. Conditions under which living quarters, meals, and laundry services or their equivalents are provided;

e. Conditions for reappointment;

(1) Nonrenewal of agreement of appointment: The Sponsoring Institution must provide a written institutional policy that conforms to the following: In instances where a resident's agreement is not going to be renewed, the Sponsoring Institution must ensure that its ACGME-accredited programs provide the resident(s) with a written notice of intent not to renew a resident's agreement no later than four months prior to the end of the resident's current agreement . However, if the primary reason(s) for the nonrenewal occurs within the four months prior to the end of the agreement, the Sponsoring Institution must ensure that its ACGME-accredited programs provide the residents with as much written notice of the intent not to renew as the circumstances will reasonably allow, prior to the end of the agreement.

(2) Residents must be allowed to implement the institution's grievance procedures as addressed below if they have received a written notice of intent not to renew their agreements.

f. Grievance procedures and due process: The Sponsoring Institution must provide residents with fair and reasonable written institutional policies on and procedures for grievance and due process. These policies and procedures must address

(1) academic or other disciplinary actions taken against residents that could result in dismissal, nonrenewal of a resident's agreement or other actions that could significantly threaten a resident's intended career development; and,

(2) adjudication of resident complaints and grievances related to the work environment or issues related to the program or faculty.

g. Professional liability insurance:

(1) The Sponsoring Institution must ensure that residents in ACGME-accredited programs are provided with professional liability coverage for the duration of training. Such coverage must provide legal defense and protection against awards from claims reported or filed after the completion of the ACGME-accredited program if the alleged acts or omissions of the residents are within the scope of the ACGME-accredited program.

(2) The professional liability coverage should be consistent with the Sponsoring Institution's coverage for other medical/professional practitioners.

(3) Current residents in ACGME-accredited programs must be provided with the details of the institution's professional liability coverage for residents.

h. Health and disability insurance: The Sponsoring Institution must provide hospital and health insurance benefits for the residents and their families. The Sponsoring Institution must also provide access to insurance to all residents for disabilities resulting from activities that are part of the educational program.

i. Leaves of absence:

(1) The Sponsoring Institution must provide written institutional policies on residents' vacation and other leaves of absence (with or without pay) to include parental and sick leave; these policies must comply with applicable laws.

(2) The Sponsoring Institution must ensure that each program provides its residents with a written policy in compliance with its Program Requirements concerning the effect of leaves of absence, for any reason, on satisfying the criteria for completion of the residency program.

j. Duty Hours:

(1) The Sponsoring Institution is responsible for promoting patient safety and education through carefully constructed duty-hour assignments and faculty availability.

(2) The institution must have formal written policies and procedures governing resident duty hours that support the physical and emotional well-being of the resident, promote an educational environment, and facilitate patient care.

k. Moonlighting:

(1) Professional and patient care activities that are external to the educational program are called moonlighting. Moonlighting activities, whether internal or external, may be inconsistent with sufficient time for rest and restoration to promote the residents' educational experience and safe patient care. Therefore, institutions and program directors must closely monitor all moonlighting activities.

(2) The Sponsoring Institution must have a written policy that addresses moonlighting. The policy must

(a) specify that residents must not be required to engage in moonlighting;

(b) require a prospective, written statement of permission from the program director that is made part of the resident's file; and,

(c) state that the residents' performance will be monitored for the effect of these activities upon performance and that adverse effects may lead to withdrawal of permission.

l. Counseling services: The Sponsoring Institution should facilitate residents' access to appropriate and confidential counseling, medical, and psychological support services.

m. Physician impairment: The Sponsoring Institution must have written policies that describe how physician impairment, including that due to substance abuse, will be handled.

n. Sexual harassment: The Sponsoring Institution must have written policies covering sexual and other forms of harassment.

2. Residency Closure/Reduction: The Sponsoring Institution must have a written policy that addresses a reduction in size or closure of a residency program. The policy must specify

a. that if the Sponsoring Institution intends to reduce the size of an ACGME-accredited program or close a residency program, the Sponsoring Institution must inform the residents as early as possible; and,

b. that in the event of such a reduction or closure, the Sponsoring Institution must either allow residents already in the program to complete their education or assist the residents in enrolling in an ACGME-accredited program in which they can continue their education.

3. Restrictive Covenants: ACGME-accredited programs must not require residents to sign a noncompetition guarantee.

E. Resident Participation in Educational and Professional Activities

1. The Sponsoring Institution must ensure that each ACGME-accredited program defines, in accordance with its Program Requirements, the specific knowledge, skills, attitudes, and educational experiences required in order for their residents to demonstrate the following:

a. **Patient care** that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health

b. **Medical knowledge** about established and evolving biomedical, clinical, and cognate (eg, epidemiological and social-behavioral) sciences and the application of this knowledge to patient care

c. **Practice-based learning** and improvement that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, and improvements in patient care

d. **Interpersonal and communication skills** that result in effective information exchange and teaming with patients, their families, and other health professionals

e. **Professionalism,** as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population

f. **Systems-based practice**, as manifested by actions that demonstrate an awareness of and responsiveness to the larger context and system for health care and the ability to effectively call on system resources to provide care that is of optimal value.

2. In addition, the Sponsoring Institution must ensure that residents

   a. develop a personal program of learning to foster continued professional growth with guidance from the teaching staff;

   b. participate fully in the educational and scholarly activities of their program and, as required, assume responsibility for teaching and supervising other residents and students;

   c. have the opportunity to participate on appropriate institutional and departmental committees and councils whose actions affect their education and /or patient care;

   d. participate in an educational program regarding physician impairment, including substance abuse.

3. The Sponsoring Institution must ensure that residents submit to the program director or to the DIO at least annually confidential written evaluations of the faculty and of the educational experiences.

F. Resident Work Environment

1. The Sponsoring Institution and its ACGME-accredited programs must provide an educational and work environment in which residents may raise and resolve issues without fear of intimidation or retaliation. This includes the following:

   a. Provision of an organizational system for residents to communicate and exchange information on their work environment and their ACGME-accredited programs. This may be accomplished through a resident organization or other forums in which to address resident issues.

   b. A process by which individual residents can address concerns in a confidential and protected manner.

2. The Sponsoring Institution must provide services and develop systems to minimize the work of residents that is extraneous to their GME programs and ensure that the following conditions are met:

   a. Food services: Residents on duty must have access to adequate and appropriate food services 24 hours a day in all institutions.

   b. Call rooms: Residents on call must be provided with adequate and appropriate sleeping quarters.

   c. Support services: Patient support services, such as intravenous services, phlebotomy services, and laboratory services, as well as messenger and transporter services, must be provided in a manner appropriate to and consistent with educational objectives and patient care.

   d. Laboratory/pathology/radiology services: There must be appropriate laboratory, pathology, and radiology services to support timely and quality patient care in the ACGME-accredited programs. This must include effective laboratory, pathology, and radiologic information systems.

   e. Medical records: A medical records system that documents the course of each patient's illness and care must be available at all times and must be adequate to support quality patient care, the education of residents, quality assurance activities, and provide a resource for scholarly activity.

   f. Security/safety: Appropriate security and personal safety measures must be provided to residents at all locations including but not limited to parking facilities, on-call quarters, hospital and institutional grounds, and related clinical facilities (eg, medical office building).

IV. GRADUATE MEDICAL EDUCATION COMMITTEE (GMEC)

A. GMEC Composition and Meetings

1. The Sponsoring Institution must have a GMEC that has the responsibility for monitoring and advising on all aspects of residency education. Voting membership on the committee must include residents nominated by their peers. It must also include appropriate program directors, administrators, the accountable DIO, and may include other members of the faculty.

2. The committee must meet at least quarterly, and maintain written minutes documenting fulfillment of the committee's responsibilities.

B. GMEC Responsibilities

The GMEC must

1. establish and implement policies and procedures regarding the quality of education and the work environment for the residents in all ACGME-accredited programs.

2. review annually and make recommendations to the Sponsoring Institution on resident stipends, benefits, and funding for resident positions to assure that these are reasonable and fair.

3. establish and maintain appropriate oversight of and liaison with program directors and assure that program directors establish and maintain proper oversight of and liaison with appropriate personnel of other institutions participating in the ACGME-accredited programs of the Sponsoring Institution.

4. establish and implement formal written policies and procedures governing resident duty hours in compliance with the Institutional and Program Requirements. The GMEC must assure that the following requirements are met:

   a) Each ACGME-accredited program must establish formal written policies governing resident duty hours that are consistent with the Institutional and Program Requirements. These formal policies must apply to all participating institutions used by the residents and must address the following requirements:

      1) The educational goals of the program and learning objectives of residents must not be compromised by excessive reliance on residents to fulfill institutional service obligations. Duty-hours and call schedules must be monitored by both the Sponsoring Institution and programs and adjustments

made as necessary to address excessive service demands and/or resident fatigue. Duty hours, however, must reflect the fact that responsibilities for continuing patient care are not automatically discharged at specific times. ACGME-accredited programs must ensure that residents are provided appropriate backup support when patient care responsibilities are especially difficult or prolonged; and,

2) Resident duty hours and on-call time periods must be in compliance with the Institutional and Program Requirements. The structuring of duty hours and on-call schedules must focus on the needs of the patient, continuity of care, and the educational needs of the resident.

b) The GMEC must develop and implement procedures to regularly monitor resident duty hours for compliance with the Sponsoring Institution's policies and the Institutional and Program Requirements.

c) The GMEC must develop and implement written procedures to review and endorse requests from programs prior to submission to an RRC for exceptions in the weekly limit on duty hours up to 10 percent or up to a maximum of 88 hours. All exceptions requested must be based on a sound educational rationale. The procedures must outline the process for endorsing an exception in compliance with the ACGME policies and procedures for duty-hour exceptions. The procedures and their application, if the institution has utilized them, will be assessed during the institutional review.

5. assure that ACGME-accredited programs provide appropriate supervision for all residents that is consistent with proper patient care, the educational needs of residents, and the applicable Program Requirements. Supervision of residents must address the following:

a) Residents must be supervised by teaching staff in such a way that the residents assume progressively increasing responsibility according to their level of education, ability, and experience.

b) On-call schedules for teaching staff must be structured to ensure that supervision is readily available to residents on duty.

c) The teaching staff must determine the level of responsibility accorded to each resident.

6. assure that each program provides a curriculum and an evaluation system to ensure that residents demonstrate achievement of the six general competencies listed in Section III.E and as defined in each set of Program Requirements.

7. establish and implement formal written institutional policies for the selection, evaluation, promotion, and dismissal of residents in compliance with the Institutional and Program Requirements.

8. regularly review all ACGME program accreditation letters and monitor action plans for the correction of concerns and areas of noncompliance.

9. regularly review the Sponsoring Institution's Letter of Report from the IRC and develop and monitor action plans for the correction of concerns and areas of noncompliance.

10. review and approve prior to submission to the ACGME

    a. all applications for ACGME accreditation of new programs and subspecialties;
    b. changes in resident complement;
    c. major changes in program structure or length of training
    d. additions and deletions of participating institutions used in a program;
    e. appointments of new program directors;
    f. progress reports requested by any Review Committee;
    g. responses to all proposed adverse actions;
    h. requests for increases or any change in resident duty hours
    i. requests for "inactive status" or to reactivate a program;
    j. voluntary withdrawals of ACGME-accredited programs;
    k. requests for an appeal of an adverse action; and,
    l. appeal presentations to a Board of Appeal or the ACGME.

11. conduct internal reviews of all ACGME-accredited programs including subspecialty programs to assess their compliance with the Institutional Requirements and the Program Requirements of the ACGME Residency Review Committees in accordance with the guidelines in Section V.

V. INTERNAL REVIEW

A. Process

1. The GMEC is responsible for the development, implementation and oversight of the internal review process. The internal review process must comply with the following:

    a. The GMEC must designate an internal review committee(s) to review each ACGME-accredited program in the Sponsoring Institution. The internal review committee must include faculty, residents, and administrators from within the institution but from GME programs other than the one that is being reviewed. External reviewers may also be included on the committee as determined by the GMEC.

b. The review must follow a written protocol approved by the GMEC that incorporates, at a minimum, the requirements in this section (Section V).

c. Reviews must be conducted at approximately the midpoint between the ACGME program surveys.

d. Although departmental annual reports are often important sources of information about a residency program, they do not meet the requirement for a periodic internal review.

2. While assessing the residency program's compliance with each of the program standards, the review should also appraise

a. the educational objectives of each program;

b. the effectiveness of each program in meeting its objectives;

c. the adequacy of available educational and financial resources to support the program;

d. the effectiveness of each program in addressing areas of noncompliance and concerns in previous ACGME accreditation letters and previous internal reviews;

e. the effectiveness of each program in defining, in accordance with the Program and Institutional Requirements (Section III.E), the specific knowledge, skills, attitudes, and educational experiences required for the residents to achieve competence in the following: patient care, medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism, and systems-based practice;

f. the effectiveness of each program in using evaluation tools developed to assess a resident's level of competence in each of the six general areas listed above;

g. the effectiveness of each program in using dependable outcome measures developed for each of the six general competencies listed above; and,

h. the effectiveness of each program in implementing a process that links educational outcomes with program improvement.

3. Materials and data to be used in the review process must include

a. Institutional and Program Requirements for the specialties and subspecialties of the ACGME RRCs from the Essentials of Accredited Residency Programs;

b. accreditation letters from previous ACGME reviews and progress reports sent to the RRC; and,

c. reports from previous internal reviews of the program.

4. The internal review committee must conduct interviews with the program director, faculty, peer-selected residents from each level of training in the program, and other individuals deemed appropriate by the committee.

5. Program inactivity: ACGME-accredited programs and subspecialties that have applied for and received RRC approval for "inactive" status do not need internal reviews. However, an internal review must be conducted prior to requesting RRC approval for reactivation.

B. Internal Review Report

1. There must be a written report of the internal review for each ACGME-accredited specialty and subspecialty program that contains, at a minimum, the following:

a. the name of the program or subspecialty program reviewed and the date of the review;

b. the names and titles of the internal review committee members to include the resident(s);

c. a brief description of how the internal review process was carried out, including the list of the groups/individuals who were interviewed;

d. sufficient documentation or discussion of the specialty's or the subspecialty's Program Requirements and the Institutional Requirements to demonstrate that a comprehensive review was conducted and was based on the GMEC's internal review protocol;

e. a list of the areas of noncompliance or any concerns or comments from the previous ACGME accreditation letter with a summary of how the program and /or institution addressed each one.

2. The written report of each internal review must be presented to and reviewed by the GMEC to monitor the areas of noncompliance and recommend appropriate action.
3. Reports from internal reviews are required to be shown to the ACGME site visitor for the institutional review and must be included in the Institutional Review Document submitted to the IRC. During the review of individual programs, these reports must not be shown to the ACGME site visitor or specialist site visitors, who only will

ascertain that an internal review was completed in the interval since the program's previous site visit.

Approved by ACGME February 11, 2003; Effective: July 1, 2003

FOOTNOTE FOR III.A.1.d.

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*A Fifth Pathway program is an academic year of supervised clinical education provided by an LCME-accredited medical school to students who meet the following conditions: (1) have completed, in an accredited college or university in the United States, undergraduate premedical education of the quality acceptable for matriculation in an accredited United States medical school; (2) have studied at a medical school outside the United States and Canada but listed in the World Health Organization Directory of Medical Schools; (3) have completed all of the formal requirements of the foreign medical school except internship and/or social service; (4) have attained a score satisfactory to the sponsoring medical school on a screening examination; and (5) have passed either the Foreign Medical Graduate Examination in the Medical Sciences, Parts I and II of the examination of the National Board of Medical Examiners, or Steps 1 and 2 of the United States Medical Licensing Examination (USMLE).